

REMARKS

CLAIM OBJECTIONS

The Examiner's objections to the claims are believed to be cured by the amendments made to the claims above.

35 U.S.C. §112 REJECTIONS

The rejection of Claims 2, 3 and 5-10 as being indefinite is believed to have been cured by the foregoing amendments.

Specifically, claims 2, 3, and 9 have been amended to correct the lack of antecedents for the original phrase "said groups". Additionally, claim 9 has been amended to correct the lack of antecedents for the original phrase "the step of determining".

Claim 5 has been amended to recite the steps of the process.

Claims 6-10 depend from Claim 5 and therefore now are believed to overcome the indefiniteness rejection.

35 U.S.C. §101 REJECTIONS

The rejection of Claims 5-10 as being an improper definition of a process under 35 U.S.C. §101 is believed to have been cured by the foregoing amendments.

Specifically, Claim 5 has been amended to recite the steps of the process.

Claims 6-10 depend from Claim 5.

REJECTIONS ON THE PRIOR ART

The rejection of Claims 1-10 as being anticipated by Olen is respectfully traversed.

This invention relates to remote control devices and methods for controlling television receivers, VCRs, DVD players and recorders, etc.

A problem which has existed for some time but has recently become more significant is the difficulty of selecting desired channels from the long list of channels now available on many TV receivers connected to cable or satellite systems. It is now not uncommon for users to have access to hundreds or even over a thousand channels.

With so many viewing choices available, it is desirable to be able to easily locate frequently watched channels. As users begin to regularly watch 10, 15, or more channels, memorizing the specific channel numbers for all of the desired channels becomes more difficult. Additionally, pressing all of the buttons required to cycle through all of the desired channels becomes time consuming and error prone.

One attempt in the prior art to help users locate desired channels is the use of on-screen guides. However, even with the aid of on-screen guides to locate desired channels, searching for one particular channel among hundreds can be slow and tedious.

All of these issues detract from the enjoyment gained from television. The present invention addresses these issues, thereby maintaining a high level of enjoyment in watching television, by simplifying access to the most frequently desired channels.

Olen attempts to solve these problems by associating a desired channel with a dedicated favorite channel button. However, Olen does not show or suggest the present invention. First, the favorite keys in Olen are used to select only one channel each. This is quite different from the present invention in which each of the favorite channel group keys is used to select a group of channels.

Used in conjunction with an up/down key, the favorite channel group keys in the present invention allow the user to associate a group of channels with a single key and cycle easily and quickly between the channels in each group, instead of the one channel per key scheme of Olen. This has the significant

advantage that the present invention can store a substantial number of desired channels. In contrast, Olen dedicates one physical button per selected channel.

Claim 1 reflects the distinctions discussed above. For example, Claim 1 recites "each of said favorite channel group keys adapted for controlling the selection of one group from a set of predetermined groups of channels." This is in contrast to Olen, where each favorite key is associated with a single channel, rather than a group of channels.

For example, to store 20 channels, a device built according to Olen would require 20 dedicated buttons. Due to usability constraints, 20 buttons will take up a considerable amount of space, requiring a larger, more expensive device. In contrast, a device embodying the present invention could store the same 20 channels but require far fewer buttons to readily access all of them, thereby enabling a smaller, less expensive device. Therefore, the Olen reference does not suggest the combination recited in Claim 1.

Additionally, in Claim 2, it is recited that "said up/down key device is enabled to control the selection of channels only in a selected one of said predetermined groups of channels when one of said favorite channel group keys has been

operated." In Olen, the up/down keys always cycle the television receiver through all available channels. Never in Olen does operation of the up/down keys cycle through only a subset of all available channels. In the present invention, when one of the favorite group keys is activated, the up/down keys cycle only through the subset of channels associated with that favorite group key. Therefore, on average, the device of the invention can operate faster than that shown in the Olen reference, and Olen does not suggest the combination recited in Claim 2.

Another advantage of the present invention is that the selection of a channel in a group is direct and essentially instantaneous, which is different from Olen. Olen does not store specific channel information for all favorite channels. Olen stores a base or reference channel, and for each favorite key, an offset from that base or reference channel. When a favorite button in Olen is activated, the remote first changes the television receiver to the base or reference channel, then executes a series of channel up or channel down commands, as determined by the stored offset, to eventually tune to the desired channel. This is both time consuming and undesirable. As Olen states, "the user is faced with a minor annoyance of

having to see, albeit briefly, the target electronic device switching into an undesired channel or an empty channel each time the channel resetting signal is transmitted upon pressing a favorite key." (column 7, lines 40-44)

The present invention suffers no such limitation. The only channels that will be displayed to the user of the present invention are those channels that the user has previously stored. This is reflected in Claim 3 which recites "means for storing in said memory control signals for the channels." This is in stark contrast to Olen, where the favorite key is associated with an offset from the base or reference channel, rather than the memory control signals for the desired channel.

Furthermore, in Olen, activation of the up/down keys always causes an identical result: transmission of an up or down signal. Specifically, "each regular control key other than the programmable favorite keys has a fixed corresponding signal code." (column 5, lines 52-54) In the present invention, upon normal operation the corresponding up/down keys operate to transmit a fixed up or down signal. However, upon activation of a favorite group key, further activation of the up/down keys no longer transmits the same, fixed signals. Instead, the up/down keys cause the device to determine the next/previous channel in

the group of channels associated with the activated favorite group key, and transmit the channel change code accordingly.

In addition, as discussed previously, the only channel change codes that are ever transmitted by Olen are the base or reference channel, and up and down signals. Olen does not tune to any arbitrary channel directly. Therefore, the Olen reference does not suggest the combination recited in Claim 3.

Claim 4 is directed to the method for operating a device according to the present invention. Claim 4 recites "(b) operating one of a plurality of switches, one for each of said groups, to select the channels in one of said groups; and (c) using the up/down scrolling device of said remote control device to scroll through said channels in said one group." In Olen, the favorite keys do not select a group. Instead, the favorite keys in Olen each tune the television to a predetermined channel. Furthermore, as discussed previously, operation of the up/down keys in Olen always results in transmission of an up or down signal; never do the up/down keys in Olen scroll through only a subset of all available channels. Therefore, the Olen reference does not suggest the combination recited in Claim 4.

Claim 5 is directed to the method for operating a device according to the present invention. As presently amended,

Claim 5 recites, "(a) detecting a favorite channel selector switch which has been selected; (b) enabling an up/down channel scanner to choose among the group of channels selected." In Olen, as discussed previously, operation of the up/down keys always results in transmission of an up or down signal; never do the up/down keys in Olen scroll through only a subset of all available channels. Therefore, the Olen reference does not suggest the combination recited in Claim 5.

Claims 6 and 10 depend from and are believed to be allowable with Claim 5.

Claim 7 depends on Claim 6, and is believed to be allowable with it and Claim 5. In addition, Claim 7 is not anticipated by Olen. In Olen, a favorite key is associated with a single channel. When in the programming mode for a favorite key, the one and only one memory location associated with that key is primed for storage. In the present invention, when in the programming mode, the up/down keys are used to choose among a plurality of memory regions associated with the selected favorite group key. Olen has no analogous functionality, nor does Olen suggest it. Therefore, the Olen reference does not suggest the combination recited in Claim 7.



Claim 8 depends on Claim 7, and is believed to be allowable with it. Furthermore, the Examiner's cited sections in Olen discuss the method by which Olen keeps an ongoing tally of how many net times the channel "up" or "down" keys have been pressed, for the purpose of determining the current offset from the base or reference channel. The counter in Olen stores a value such as +7 or -3, corresponding to the offset from the base or reference channel. In contrast, the line counter in the present invention is used to determine how many digits are in a specific channel number. For example, the channel 15 would have a line count of two. Similarly, the channel 417 would have a line count of three. This functionality is quite distinct from that described in Olen. Therefore, the Olen reference does not suggest the combination recited in Claim 8.

Additionally, in Olen, each favorite key is associated with, albeit indirectly, a single channel, not multiple channels. Olen does not have the concept of groups of channels.

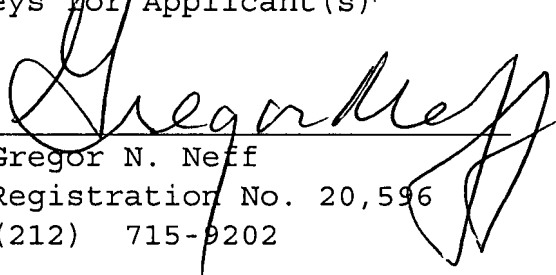
Claim 9 recites, "selecting the channels within each such group." Therefore, the Olen reference does not suggest the combination recited in claim 9.

In accordance with the foregoing, it is respectfully requested that the claims be allowed and the application be passed to issue.

Respectfully submitted,

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